

Feeding rate, prey preference, and prey size preference of two invasive predatory marine gastropods in Washington State

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Two predatory gastropods were introduced to the Pacific Northwest with shipments of seed oysters. The Eastern oyster drill, *Urosalpinx cinerea*, arrived in the late 1800s with Eastern oysters, and the Japanese oyster drill, *Ocenebrellus inornatus*, arrived in the early 1900s with oysters from Japan. Both consume oysters, other bivalves, and barnacles by drilling a hole in the shell, and therefore negatively affect aquaculture and native species. In field trials we compared feeding rates 1) across a range of drill sizes, 2) across a range of oyster sizes, 3) across four prey items, and 4) across seasons. Both species preferred small oysters and showed seasonal variation in feeding rate, with peak feeding rates of more than 2 seed oysters per week in summer. *O. inornatus* did not show a strong prey preference, but may show a tendency to continue eating the same prey when available.